

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A sound masking system for controlling the ambient noise level in a physical environment, said sound masking system comprising:

(a) a communication network spanning at least a portion of said physical environment;

(b) a plurality of sound masking units, ~~some of~~ at least one of said sound masking units including a sound masking component for generating a sound masking output signal and said sound masking units including a communication interface for coupling said sound masking units to said communication network for receiving control signals over said communication network;

(c) a control unit, said control unit having a network ~~[communication]~~ interface for coupling said control unit to said communication network for transmitting control signals over said communication network to said sound masking units, and said control signals including signals for selectively controlling the operation of said sound masking units.

2. (Original) The sound masking system as claimed in claim 1, wherein said communication interface comprises an address component for recognizing control signals intended for the sound masking unit associated with said address component.

3. (Original) The sound masking system as claimed in claim 2, wherein said control unit includes an address generator for assigning addresses to said sound masking units.

4. (Original) The sound masking system as claimed in claim 3, wherein said address generator comprises a component for generating a logical address for each of said sound masking units, and said logical address being derived from an identifier associated with each of said sound masking units.

5. (Currently Amended) The sound masking system as claimed in claim 2, wherein said sound masking unit includes a control component, said control component being responsive to at least ~~some of~~ at least one of said control signals for controlling characteristics of said sound masking output signal.

6. (Original) The sound masking system as claimed in claim 5, wherein said controllable characteristics of said sound masking output signal include a variable contour characteristic.

7. (Original) The sound masking system as claimed in claim 5, wherein said controllable characteristics of said sound masking output signal include a variable gain characteristic.

8. (Original) The sound masking system as claimed in claim 5, wherein said controllable characteristics of said sound masking output signal include a variable frequency characteristic.

9. (Original) The sound masking system as claimed in claim 5, wherein said controllable characteristics of said sound masking output signal include a paging volume characteristic.

10. (Currently Amended) The sound masking system as claimed in claim 1, further including a computer, and said control unit having a computer [~~communication~~] interface for receiving adjustment signals from said computer, and said control unit including a component for converting said adjustment signals into control signals for controlling characteristics of said sound masking output signal.

11. (Original) The sound masking system as claimed in claim 10, wherein said sound masking units include an equalizer for adjusting spectral characteristics of said sound masking output signal in response to a spectral control signal.

12. (Original) The sound masking system as claimed in claim 11, wherein said computer includes a component for receiving sound level readings for the physical environment and a component for generating an equalizer adjustment signal

derived from said sound level readings, and said control unit being responsive to said equalizer adjustment signal for generating said spectral control signal.

13. (Original) The sound masking system as claimed in claim 12, wherein said component for receiving sound level readings comprises a microphone.

14. (Original) The sound masking system as claimed in claim 1, wherein said control unit comprises a computer, and said computer including a component for receiving sound level readings for the physical environment and a component for generating a spectrum adjustment command in response to said sound level readings, and said computer transmitting said spectrum adjustment command to one or more of said sound masking units for adjusting the spectrum of said sound masking signal.

15. (Previously Presented) The sound masking system as claimed in claim 10, wherein said computer includes a component for receiving sound level readings for the physical environment and a component for generating a volume level adjustment signal and said control unit being responsive to said volume level adjustment signal for adjusting the volume of said sound masking signal.

16. (Previously Presented) The sound masking system as claimed in claim 10, wherein said computer includes a component for receiving sound level readings for the physical environment and a component for generating a paging volume

adjustment signal and said control unit being responsive to said paging volume adjustment signal for adjusting the paging volume.

17. (Previously Presented) The sound masking system as claimed in claim 1, further including a paging component, said paging component comprising a plurality of input ports for receiving a plurality of paging signals, and a selector coupled to said input ports for selecting one or more of said paging signals and a routing component for routing said selected paging signals over said communication network and one or more of said sound masking units inputting one of said selected paging signals for announcement in response to a control command received from said control unit.

18. (Previously Presented) The sound masking system as claimed in claim 17, wherein said control command is transmitted to a plurality of sound masking units to define a paging zone, and said paging zone defining a destination for one of said selected paging signals.

19. (Previously Presented) The sound masking system as claimed in claim 2, further including a paging component, said paging component comprising a plurality of input ports for receiving a plurality of paging signals, and a selector coupled to said input ports for selecting one or more of said paging signals and a routing component for routing said selected paging signals over said

communication network for selection by one or more of said sound masking units for announcement.

20. (Currently Amended) A sound masking system for shaping the ambient noise level in a physical environment, the sound masking system comprises:

(a) a communication network spanning at least a portion of said physical environment;

(b) a plurality of sound masking units, ~~some of~~ at least one of said sound masking units including a sound masking circuit for generating a sound masking output signal for shaping the ambient noise level in the vicinity of each of said sound masking units, a programmable controller for controlling operation of said sound masking circuit, and a communication interface for coupling said sound masking units to said communication network, and said programmable controller being coupled to said communication network for receiving control signals from said communication network for altering the operation of said sound masking circuit;

(c) a control unit, said control unit having a network ~~[communication]~~ interface for coupling said control unit to said communication network for transmitting control signals over said communication network to said sound masking units, and said control signals including signals for controlling the operation of at least one ~~some~~ of said sound masking units;

(d) wherein said sound masking circuit comprises a random noise generating component for generating an incoherent signal output, an equalizer

component for receiving the incoherent signal output and generating an incoherent signal output with a predetermined contour, and an output amplifier for amplifying said contour incoherent signal output, and said programmable controller including a component for altering the contour of said incoherent signal output in response to a control command from said control unit.

21. (Previously Presented) The sound masking system as claimed in claim 20, wherein said sound masking circuit comprises an equalizer component for receiving the incoherent signal output and generating an incoherent signal output with programmable spectral characteristics in response to a control command from said programmable controller.

22. (Previously Presented) The sound masking system as claimed in claim 21, wherein said control unit comprises a computer, and said computer including a component for receiving sound level readings for the physical environment and a component for generating a spectrum adjustment command in response to said sound level readings, and said computer transmitting said spectrum adjustment command to one or more of said sound masking units for adjusting the spectrum of said sound masking signal.

23. (Previously Presented) The sound masking system as claimed in claim 20, wherein said communication interface comprises an address component for recognizing control signals intended for the sound masking unit associated with

said address component, and said programmable controller including a component for decoding said control signals and applying one or more of said decoded signals for controlling operation of said sound masking circuit.

24. (Currently Amended) A networked paging system comprising:

(a) a communication network spanning at least a portion of ~~said~~ a physical environment;

(b) a plurality of speaker units, said speaker units including a communication interface for coupling said speaker units to said communication network, said communication interface having an address component for recognizing control signals and a paging signal for announcement at said speaker unit intended for the speaker unit associated with said address component;

(c) a control unit having a network ~~communication~~ interface for coupling said control unit to said communication network for transmitting control signals over said communication network to said speaker units associated with said address component, and said control signals including signals for selectively controlling the operation of said speaker units;

(d) said control unit including an address generator for assigning addresses to said speaker units.

25. (Previously Presented) The networked paging system as claimed in claim 24, wherein said address generator comprises a component for generating a logical

address for each of said speaker units, and said logical address being derived from an identifier associated with each of said speaker units.

26. (Previously Presented) The networked paging system as claimed in claim 25, further including a paging signal component, said paging signal component comprising a plurality of input ports for receiving a plurality of paging signals, and a selector coupled to said input ports for selecting one or more of said paging signals and inserting the selected paging signals into communication channels for transmission over said communication network to said speaker units, and said speaker units selecting one of said paging signals according to a control command received from said control unit.

27. (Previously Presented) The networked paging system as claimed in claim 26, wherein said control unit includes a component for defining a paging zone comprising a number of speaker units, and said speaker units belonging to said paging zone receiving a control message from said control unit for selecting one of said paging signals in the communication channels transmitted over said communication network.

28. (Cancelled)

29. (Cancelled)

30. (New) A sound masking system for controlling the noise level in a physical environment, said sound masking system comprising:

a communication network spanning at least a portion of the physical environment;

a plurality of sound masking units, at least one of said sound masking units including a sound masking component for generating a sound masking output;

a control unit, said control unit being coupled to said communication network for transmitting control signals over said communication network, and said control signals including signals for selectively controlling the operation of said sound masking units;

each of said sound masking units further including a network interface for coupling the sound masking unit to said communication network, said network interface including an input port for receiving one or more of said control signals at said sound masking unit, and an output port for outputting one or more signals from said sound masking unit to said communication network.

31. (New) The sound masking system as claimed in claim 30, wherein said control unit includes an address generator for assigning an address for each of said sound masking units.

32. (New) The sound masking system as claimed in claim 31, wherein said address generator comprises a component for generating a logical address for each

of said sound masking units, and said logical address being derived from an identifier associated with each of said sound masking units.

33. (New) The sound masking system as claimed in claim 30, wherein said sound masking unit includes a control component, said control component being coupled to said input port, and said control component being responsive to at least at least one of said control signals for controlling characteristics of said sound masking output signal.

34. (New) The sound masking system as claimed in claim 33, wherein said controllable characteristics of said sound masking output include a variable contour characteristic.

35. (New) The sound masking system as claimed in claim 33, wherein said controllable characteristics of said sound masking output include a variable gain characteristic.

36. (New) The sound masking system as claimed in claim 33, wherein said controllable characteristics of said sound masking output include a variable frequency characteristic.

37. (New) The sound masking system as claimed in claim 33, wherein said controllable characteristics of said sound masking output include a paging volume characteristic.

38. (New) The sound masking system as claimed in claim 31, further including a computer, and said control unit having a computer interface for receiving adjustment signals from said computer, and said control unit including a component for converting said adjustment signals into one or more control signals for controlling characteristics of said sound masking output.

39. (New) The sound masking system as claimed in claim 38, wherein said sound masking units include an equalizer for adjusting spectral characteristics of said sound masking output in response to a spectral control signal.

40. (New) The sound masking system as claimed in claim 39, wherein said computer includes a component for receiving sound level readings for the physical environment and a component for generating an equalizer adjustment signal derived from said sound level readings, and said control unit being responsive to said equalizer adjustment signal for generating said spectral control signal.

41. (New) The sound masking system as claimed in claim 30, further including a paging component, said paging component comprising a plurality of input ports for receiving one or more paging signals, and a selector coupled to said input ports

for selecting one or more of said paging signals and a routing component for routing said selected paging signals over said communication network and one or more of said sound masking units inputting one of said selected paging signals for announcement in response to a control command received at said input port from said control unit.

42. (New) The sound masking system as claimed in claim 41, wherein said control command is transmitted to a plurality of sound masking units to define a paging zone, and said paging zone defining a destination for one of said selected paging signals.

43. (New) A sound masking system for controlling the noise level in a physical environment, said sound masking system comprising:

a plurality of sound masking units, at least one of said sound masking units including a sound masking component for generating a sound masking output signal;

said sound masking units including a communication interface, said sound masking units being coupled together at said communication interfaces to form a network of sound masking units;

a control unit, said control unit having an interface for coupling to the communication interface of one of said sound masking units, said control unit being coupled to said network of sound masking units for transmitting control

signals over said network, said control signals including signals for selectively controlling the operation of at least one of said sound masking units.

44. (New) The sound masking system as claimed in claim 43, wherein said communication interface comprises an input port, an output port and a switching component, said input port being coupled to said control unit or to the output port of another of said sound masking units, said communication interface including another output port, said other output port being coupled to said switching component.

45. (New) The sound masking system as claimed in claim 44, wherein said sound masking unit includes a control component, said control component being coupled to said switching component, and said control component being responsive to at least at least one of said control signals for controlling characteristics of said sound masking output signal.

46. (New) A networked paging system comprising:

a communication network spanning at least a portion of a physical environment;

a plurality of speaker units, said speaker units including a communication interface for coupling said speaker units to said communication network, said communication interface including an address component for recognizing one or more signals addressed to the speaker unit associated with said address

component, said communication interface including an input port for inputting said one or more signals addressed to said speaker unit;

a control unit, said control unit being coupled to said communication network for transmitting said one or more signals over said communication network, and said control signals including signals being addressed to one or more of said speaker units for selectively controlling the operation of said one or more speaker units; and

said communication interface for said speaker units including an output port for transmitting a response signal associated with said speaker unit to said control unit via said communication network.

47. (New) The networked paging system as claimed in claim 46, wherein said control unit includes an address generator for assigning at least one address to each of said speaker units.

48. (New) The networked paging system as claimed in claim 47, wherein said address generator comprises a component for generating a logical address for each of said speaker units, said logical address being derived from an identifier associated with each of said speaker units.

49. (New) The networked paging system as claimed in claim 48, further including a paging signal component, said paging signal component comprising a plurality of input ports for receiving a plurality of paging signals, and a selector

coupled to said input ports for selecting one or more of said paging signals and inserting the selected paging signals into communication channels for transmission over said coupled network to said speaker units, and said speaker units selecting one of said paging signals according to a control command received at said input port from said control unit.

50. (New) The networked paging system as claimed in claim 49, wherein said control unit includes a component for defining a paging zone comprising a number of speaker units, said speaker units belonging to said paging zone receiving a control message at said input port from said control unit for selecting one of said paging signals in the communication channels transmitted over said coupled network.